

# Guiding Principles for Public Health

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**Heema Shukla**

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Public health practice is based on the principles of equity, fairness and inclusiveness, empowerment, effectiveness and evidence-based practice. In this section we present how these principles are applied to public health practice and its impact on population health, equalities and quality of healthcare. Examples from the local health economy are also presented. Proposals to embed public health principles in both strategic decision making and day to day practice within different organisations in the borough are provided.

## **Why do fairness, equity, and inclusiveness matter?**

There is sufficient evidence that societies that have greater equity in wealth and in access to good quality education, housing, food and health care have better average health across the social gradient. Equity benefits everyone as the level of trust among communities, innovation, and social mobility is associated with size of the socioeconomic gap within the country.

Sir Michael Marmot's review '*Fair Society, Healthy Lives*' highlights that better life chances lead to better health and that poor social conditions are a key limiting factor in improving life chances. Besides an ideological aim, reducing health inequalities has an economic benefit.

***Health inequalities in the UK cost the industry over £31 billion in productivity losses, the government £20-32 billion in tax losses and welfare benefits and the NHS about £5.5 billion a year.***

***(Frontier Economics, 2010)***

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The Marmot review has recommended six evidence based policy objectives, which will require action by central and local government, the NHS, the third and private sectors and community groups.

- **Give every child the best start in life**
- **Enable all children, young people and adults to maximise their capabilities and have control over their lives**
- **Create fair employment and good work for all**
- **Ensure healthy standard of living for all**
- **Create and develop healthy and sustainable places and communities**
- **Strengthen the role and impact of ill health prevention**

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Whilst other sections in this annual report refer to these policy objectives, the Chapter on Equalities by Kay Ollivierre, Engagement and Inclusion Manager for NHS NW London, demonstrates how effective implementation of the Equalities Act across the health economy contributes to making Hillingdon healthier.

### **Why is measuring health and well-being complex, but important?**

The NHS has a good record of collecting data on the illness that people present with at a health care setting. A hospital and a GP practice may therefore have information on its patients. Similarly social care collects information on service users. This information is useful both for surveillance of diseases and illness and demand of services. However, for any health service, irrespective of the method of funding, to be affordable and sustainable requires some limit on demand. Moreover, healthcare is part of the wider economy that requires a healthy population. Therefore measuring population health and well-being is important both for health and the wider economy.

***Sickness absences costs the UK employers a loss of 140 million working days and £9 billion a year in sick pay and associated costs, plus the indirect costs of managing business while people are off sick.***

***(Dame Carol Black and David Frost, 2011)***

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It is economically prudent to measure health and invest in maintaining health. The definition agreed by member states of the World Health Organisation is

***Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.***

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This definition recognises that the environment and social conditions are important factors in any measurement of health. Measuring population health and needs is more complex. The local public health intelligence team describe the indicators and methods used to measure population health and assessment of needs. Many examples of work done over the years locally to understand health needs of local communities are summarised. It demonstrates that work done by the Public Health Observatories (PHOs) complements and facilitates that done by the local public health intelligence team. For example, *Fair London, Healthier London* shows that the majority of Hillingdon neighbourhoods fall within the top two quartiles representing least deprivation, yet the life male and female life expectancy in some neighbourhoods fall in the bottom two quartiles. Local knowledge of

population characteristics, services and access combined with more detailed analyses can explain why this is the case. It explains how the Joint Strategic Needs Assessment is shaping local policies and services and the current limitations in available information. Recommendations to overcome the current recommendations are made.

### **Why develop a culture of Evidence based practice?**

Evidence based practice, although in concept a timeless principle, in reality was made explicit in the early 1990s when it became recognised that much medical practice was not evidence based. It is now recognised as the most rational and therefore usually the best option in management of health and wellbeing and is therefore termed evidence based practice. The approach allows decisions to be made on evidence from research studies based on a set of definitions that provide a hierarchy of quality of evidence. Evidence based practice also includes steps which a practitioner or service can use to ensure that everything they do is evidence based. In the chapter on evidence based practice (EBP), Dr John Aldous, consultant in public health medicine describes the origins of this approach, defines it and explains its importance to the practitioner and the individual patient, the population and the health economy. The chapter also discusses the benefits and threats posed by the expansion of information technology. In the UK, the NHS Evidence for Health and Social care website provides an easy one stop access to the specialist evidence-based practice libraries such as the Cochrane database of systematic reviews, national institute for Health and clinical Excellence (NICE) evidence based guidelines and pathways, and Health Technology Assessments. The chapter provides actions to encourage a culture of evidence based practice among health and social care practitioners and widen this approach to other professions within the local strategic partnership.

# The contribution of the Equality Act to a Fair Society and Healthy Lives Policy Objectives

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*Kay Ollivierre*

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***“Good health is not only an asset in itself; it also enables people to further their careers, look after families, and pursue their other interests to the full.”***

***Equality and Human Rights Commission Triennial Review 2010 – ‘How fair is Britain?’***

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## **Introduction**

More equal societies are related to better mental health, more cohesive communities, less crime and disorder, better education scores, less drop-outs from school, less substance abuse, less teenage pregnancies and better life expectancy (Wilkinson and Pickett, et al). Whilst the affluence of a society is related to its health, population health is best achieved when the gap between the richest and the poorest is narrow.

Equality legislation and human rights has always been a part of Health and Social Care. In the early 1980s equality laws highlighted how equal opportunities would lead to a more ‘balanced playing field’ enabling people to reach their potential. Further legislative amendments in the 1990s, driven by critical incidents, saw the introduction of a public sector duty to recognise and value diversity and to promote equality between people from different groups. These amendments helped to strengthen communities and raised the level of consciousness within health and social care organisations.

The new Equality Act, which came into effect in October 2010, now simplifies the existing equality legislation by removing inconsistencies and making it easier for individuals and organisations to understand; work together and comply with. It also strengthens the law in important ways to help tackle discrimination and inequality in organisations that directly or indirectly provide a service to the public.

## **What is the public sector Equality Duty?**

The public sector Equality Duty, at section 149 of the Equality Act, requires public bodies to consider all individuals when carrying out their day to day work – in shaping policy, in delivering services and in relation to their own employees. It requires public bodies to have due regard to the need to

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eliminate discrimination, advance equality of opportunity, and foster good relations between different people when carrying out their activities.

The Equality Duty supports good decision making – it encourages public bodies to understand how different people will be affected by their activities, so that their policies and services are appropriate and accessible to all and meet different people's needs. By understanding the effect of their activities on different people, and how inclusive public services can support and open up people's opportunities, public bodies can be more efficient and effective. The Equality Duty therefore helps public bodies to deliver the Government's overall objectives for public services.

The Equality Act explains that having due regard for advancing equality involves:

- Removing or minimising disadvantages suffered by people due to their protected characteristics.
- Taking steps to meet the needs of people with certain protected characteristics where these are different from the needs of other people.
- Encouraging people with certain protected characteristics to participate in public life or in other activities where their participation is disproportionately low.

Under this Act, there is a duty on public bodies to reduce socioeconomic inequalities and reduce discrimination against the protected characteristics, namely, **age, disability, gender reassignment, marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex, and sexual orientation.**

It states that meeting different needs involves taking steps to take account of disabled people's disabilities. It describes fostering good relations as tackling prejudice and promoting understanding between people from different groups.

The streamlining of the Act enables health and social care organisations to work together to form a common set of policy frameworks and behavioural norms that lead to transparent, equitable decision making and focused outcomes for service users.

### **Integrated tools and techniques for embedding equalities and reducing health inequalities**

Where we do not currently have robust disaggregated data, fair decisions need to be made about how to use our finite resources. We therefore need to understand not just what good looks and feels like in relation to equality of these outcomes, but also in relation to all other parts of the system which have an impact on those outcomes. The relevant parts of the system which need to be in place to support equitable outcomes are:

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- Equitable commissioning and delivery processes
- A competent diverse workforce to put these processes into practice
- Effective and equitable public and user engagement
- Action to reduce inequalities arising from external factors

### The Equality Delivery System (EDS)

All these factors have been brought together by the new Equality Delivery System (EDS) designed to improve the equality performance of the NHS and embed equality into mainstream business planning processes to deliver the outcomes that matter most to people.

The EDS applies to all current and planned NHS commissioning organisations, including GP Consortia, and to NHS providers including Foundation Trusts. By using the EDS, these organisations will be able to meet the requirements of the Equality Act and help focus on delivering the five domains of the NHS Operating Framework. Providers will be better placed to meet the registration requirements of the Care Quality Commission (CQC).

### EDS Goals and Outcomes

| Goal                                      | Narrative :<br>The NHS is asked to ...   | Outcome   |
|---|--|---|
| 1. Better health outcomes for all         | Achieve improvements in patient health, public health and patient safety for all, based on comprehensive evidence of needs and results                   | 1.1 Services are commissioned, provided and contractually monitored so that they meet the needs of all patients and local communities   |
|   |  | 1.2 Public health outcomes are measurable, substantive and are developed through evidence-based strategies, developed with the involvement of patients and local communities  |
|   |  | 1.3 Patient safety outcomes are demonstrating measurable increases across all equality target groups, with the active participation of staff and managers engaging with patient groups and involving local communities      |
| 2. Improved patient access and experience | Improve accessibility and information, and deliver the right services that are targeted, useful, useable and used in order to improve patient experience | 2.1 Patients and communities are affectively accessing services, taking into account barriers that historically hinder equality of access   |
|   |  | 2.2 Patients and communities are provided with appropriate communications support and information about services, so that they can make informed choices and be assured of diagnoses and treatments tailored to their needs |
|   |  | 2.3 Patients report positive experiences of the NHS, where they are listened to and respected, and the services they receive are safe, effective and personalised to their specific needs                                   |
| 3 Beyond compliance                       | Put effective governance processes in place to assure sustained  | 3.1 An evidence-based and outcome-focused Equality Strategy is in place, targeting adverse outcomes and discrimination, while addressing both the organisation's business priorities and the requirements of the Equality   |

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| Goal                                      | Narrative :<br>The NHS is asked to ...  | Outcome  |
|---|---|--|
|   | compliance with the requirements of the Equality Act and continual innovation in best practice  | Act<br><br>3.2 Equality data and other evidence are used so that all outcomes are measurable, and the impacts of policies, services and functions can be identified and evaluated for all groups   |
| 4. Workforce – the NHS as a fair employer | Increase the diversity and quality of the working lives of the workforce, supporting all staff to better respond to patients' and communities' needs  | 4.1 A diverse workforce more accurately reflects the local population, at all levels including board level<br>4.2 The workforce is confident, competent and feels empowered to deliver appropriate and, accessible services, and improved patient experience for all communities<br>4.3 The workplace is free from actual and potential discrimination -from recruitment to retirement - and all staff are able to fully realise their potential |
| 5 Inclusive leadership at all levels      | Ensure that throughout the organisation, equality is everyone's business, and everyone is expected to take an active part, supported by the work of specialist equality leaders and champions | 5.1 Corporate leadership champions and assures equality outcomes within the organisation and the local health economy<br>5.2 The organisation develops and supports equality leaders and champions from among its workforce  |

The EDS is about people making real improvements that can be sustained over time. It focuses on the things that matter the most for patients, communities and staff. It emphasises genuine engagement, transparency and the effective use of evidence. The EDS is not about occasional consultation; it is not a paper-chase; it is not self-assessment.

### What are the issues?

- Barriers to equity are multi-layered and often deeply embedded in organisational culture, structures and processes. Consequently, activity to develop the common set of policy frameworks to improve outcomes in a sustainable way is developmental and may not impact significantly on outcomes in the short or medium term. Therefore what is required is to measure milestone outputs, processes and improvement area outcomes.
- Measuring compliance with equalities legislation is not straightforward. How do we know we are measuring the right things when we are looking at processes and not outcomes?

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- We don't always have the data disaggregated sufficiently either to know where the inequalities are or to be able to measure progress, or to make an appropriate risk assessment. Improving hard data collection on all equalities is a long term task and there is always likelihood that some data will not be robust.

### How can these issues be addressed?

#### Embedding Equalities within organisational policies

In Hillingdon, the PCT and the Hillingdon Hospital implemented actions based on a strategy developed by the Equalities & Diversity group. There was a strong leadership with commitment from the Board. Two key actions that had the potential to have the greatest impact were

- All papers that came to the board had an equalities impact assessment statement
- All staff were required to complete training in Equalities and impact assessment

#### Information on Equalities

Information to understand and address equalities can be divided broadly into three types based on the source and purpose

1. Employee information which the Human Resources are expected to collect to fulfil the duty under the Equalities Act
2. The information collected by service providers either in-house or commissioned by public bodies
3. Population information from various sources

Normally data collected by Human Resources is complete, and the information from service providers is not always complete. A good practice is where the information is a Key Performance Indicator (KPI) included in the commissioning contracts. To demonstrate that inequalities are being addressed data from 1 and 2 need to be mapped against data from 3.

#### Utility of JSNA as a tool for equalities measurement

Whilst Hillingdon has a track record on developing and publishing high quality detailed population information both in the Annual Public Health Reports and special projects such as the ward profiles, the Joint Strategic Needs Assessment is an opportunity to have an authoritative source of information across the health and social economy that can fulfil two purposes

- Providing baseline information on inequalities related to the Equalities Act, namely, socioeconomic inequalities and inequalities among the protected characteristics, and recommending key indicators
- Monitoring the progress towards equalities and better health

### Conclusions

The PCT had considerable useful knowledge and skill in tackling health inequalities. However, some of it is at risk of being lost during the transition to the new NHS. During the transition and in the early years of the new organisation, the leadership within the Health and Well-being Boards will have to hold the ring to ensure that all commissioners within the health and social care economy utilise the JSNA to meet their duty under the Equalities Act. During 2012/13, in full engagement with key stakeholders and local interests, NHS organisations, supported by local Health and Wellbeing Boards, should develop four year Equality Objectives and priorities, based on a grading of their equality performance against 12 outcomes that are grouped under the four EDS goals and outcomes mentioned above. Similar equalities duties apply to the London borough of Hillingdon (LBH) as a public sector body. Public health will have a particular responsibility for addressing equality issues in pathways spanning health and social care.

Implementing the Equality Act will help to build a service that is personal, fair and diverse but at the same time economical as it focuses our attention on where resources are needed the most. However this requires recognition of the differing needs and skills offered by groups within our communities. There are real opportunities presented by the implementation of the Equality Act in developing a service where everyone counts. The engagement of Public Health with Clinical Commissioning Group (CCG) and the Health and Well Being boards will become important in future, particularly as the health and social care consequences of economic stresses become evident.

***“GPs have an excellent opportunity through management and allocation of their budgets to work in partnership with carers and voluntary organisations to help them to tackle health inequalities. For example, they can work with the homeless people and gypsies and travellers, African and Caribbean men on prostate cancer, Pakistani women regarding infant mortality. Now is their moment to use their resources to make the difference.”***

***Maqsood Ahmad, Director of Inclusion, East Midlands SHA***

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# Measurement and Monitoring of Population Health

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*Benhildah Dube, Leah de Souza-Thomas, Tejal Indulkar*

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***"When you can measure what you are speaking about and express it in numbers you know something about it; but when you cannot express it in numbers your knowledge is of a meagre and unsatisfactory kind."***

***Lord Kelvin (1824 -1907) - British scientist who developed the temperature scale***

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## Introduction

The measurement of health and the burden of disease at population level is an important feature of healthcare planning, in particular for the following:-

- Prioritisation of actions in health and the environment
- Planning for preventive action
- Assessing performance of healthcare systems
- Comparing action and health gain
- Identifying high-risk populations
- Planning for future needs
- Setting priorities in health research

The measurement of population health is a specialist field of study that is grounded in epidemiology. Epidemiology is the scientific study of the distribution and determinants of health-related states or events in specified populations and the application of this study to the control of health problems (Last, 2001). Based on the activities over the last 150 years, epidemiology has been used to describe and explain patterns of disease in populations, and this knowledge has been enormously successful in heightening public awareness of risk, prevention and control disease and improving health.

Most epidemiologists have a keen interest in health, however due to the difficulties of studying health directly; they tend to study health indirectly through disease. Recently, epidemiology has begun to evolve new paradigms as the concepts which have proven themselves in the study of disease are increasingly used to study health and healthcare.

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The key strategy in epidemiology is to seek to measure and monitor differences and similarities in the disease patterns of populations to gain new knowledge on the risk factors for major disease. This is carried out through the use and interpretation of statistical manipulations of data such as multiple logistic regression and statistical modelling.

Measures of health and wellbeing can be quantitative or qualitative. Simple measures such as prevalence (quantifies the proportion of individuals in a population who have the disease at a specific point in time), mortality (data related to deaths in a population) and life expectancy (the age an individual on average is expected to reach from birth) can be calculated from routine data collection systems such as birth and death registrations and disease registers. More complex measures which analyse the impact of a health condition or health intervention on population health, such as the Disability Adjusted Life Years (DALYs) (a measure of overall disease burden, expressed as the cumulative number of years lost due to ill-health, disability or early death) and Quality Adjusted Life Years (QALYs) (takes into account both the quantity and quality of life generated by healthcare), require collection of qualitative and quantitative information collected in surveys using validated questionnaires.

### Origins of public health sciences

The origins of public health sciences can be traced back to the 1660s when the officials of Charles II were trying to develop a system for the early warning of onset and spread of the bubonic plague. Although this did not come to fruition, John Graunt, a haberdasher in London, analysed the mortality rolls and presented his publication, *Natural and Political Observations Made upon the Bills of Mortality*. Graunt's findings showed what we now take for granted that there was a 'physico-mathematical' relationship between the 'waxing and waning of diseases' and the quality of the built environment (Champion J, 1993). His book contained information not only on the numbers and proportions of deaths due to various diseases but also the numbers of births in each parish. He produced the first estimate of the size of the London population, the first Life Table and is considered the father of demographic science.

Edward Jenner's observation that milkmaids who had contracted cowpox were immune to smallpox and his subsequent inoculation of a young boy with cowpox and then smallpox to test his theory heralded the era of vaccination and is another example of public health science in action. To this day vaccinations remain one of the most successful preventative measures available to the medical profession to prevent population ill health.

Edwin Chadwick's major review *The Sanitary Conditions of the Labouring Populations* in England and Wales converted Chadwick into one of the most important public health activists of the 1800s, who believed in using science as a means of social improvement. His review used quantitative measures to

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show that there was a direct link between poor living conditions, disease and life expectancy. Chadwick's review recommended the public health measure of the development of water and sanitation supplies to major towns and inspired the 1848 Public Health Act.

William Farr, a pioneer in the fields of medical statistics and epidemiology, worked as a compiler of scientific abstracts in the General Registers Office (later known as the Office of Population Censuses and Surveys (OPCS) and now as the Office for National Statistics (ONS)). His natural passion for medical statistics and his understanding of the importance of identifying preventable causes of death in the population led him to set up the first system for routinely recording the cause of death and compiling the first sets of vital statistics. Vital statistics have been continued ever since.

Farr, like his medical contemporaries subscribed to the miasma theory of disease. This theory suggested that disease were caused by the presence in the air of a poisonous vapour in which were suspended particles of decaying matter that was characterised by its foul smell. He's work documented that the incidence of death from cholera decreased, with height and distance from the River Thames since there were lower concentrations of miasma. John Snow, a physician used the work of Farr to develop an alternative theory; a waterborne mode of transmission. Despite Snow demonstrating that the source of cholera was a water pump, on Broad Street in London by systematically mapping the cases on a map and that removal of the handle of the pump led to a reduction of cases, his theory was dismissed by his contemporaries. Snow's theory was finally accepted in the wake of the last London cholera epidemic of 1886. His report showed a clear association between victims of the epidemic and one particular water source. Snow is known as the father of modern epidemiology

Today, Public Health professionals stand on the shoulders of these individuals and although the most significant public health advances have already been made there is still more to be done.

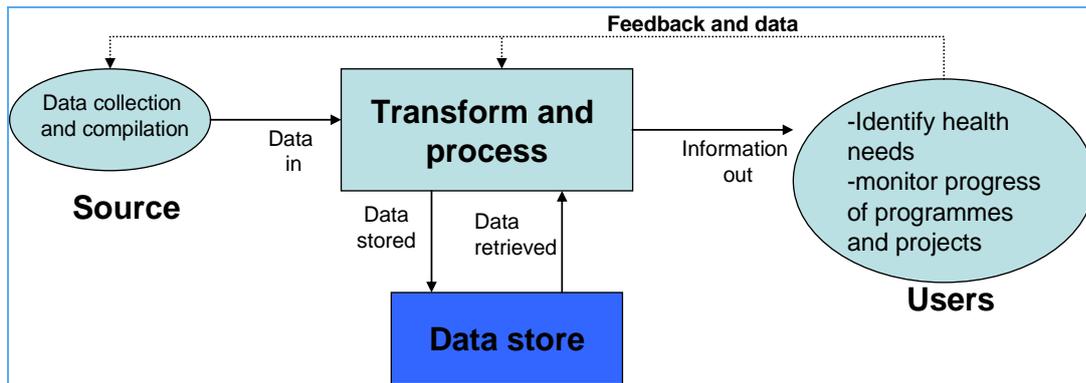
### **How is population health measured today?**

#### **Public health information**

Recent advances in information technology have made it possible to store and process large datasets which are easily accessible to users. Measuring and monitoring requires flow of good quality information. Transformations are applied to data from various sources leading to meaningful health intelligence and indicators (figure 1).

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Figure 1: The information flow



The measurements should be reliable and accurate, precise, timely, relevant, accessible and comprehensive. Public health mostly uses routinely collected data. The major strengths of using such data include its ready availability at a low cost, its use in examining trends of diseases over time and place and its utility as baseline data. However, routinely collected data is subject to incompleteness, errors and biases, it is not always timely due to delays between collection and publication, limited in the availability of some variables such as ethnicity and finally its interpretation depends on the main objective of its production and intended audience. Relevant routinely collected data should be reliable, complete and free from bias and measurement errors to make it a necessary building block for a healthier population, environment and economy (Institute of Medicine, 2010).

The information that public health intelligence analysts use to measure population health can be classified as follows:-

- Demography (sourced from Office of national Statistics (ONS) and Greater London Authority (GLA),
- Health-related (sourced from ONS (Vital statistics of birth and deaths), Health surveys of England, disease registers such as Diabetic UK, Synthetic estimates from National Centre for Social Research, Primary/secondary care data from health providers)
- Social determinants of health (data from ONS and various government departments) such as economic status, deprivation, educational attainment, housing, crime, transport and environmental data are also useful in health analyses
- National reference (WHO - International Codes of Diseases (ICD10), Ordinance survey - postcode data)

Data from various measurements produce relative and absolute ratios/rates (public health indicators) that are useful in setting effective and efficient goals and objectives through comparisons of different geographical areas and trends over periods/years. Indicators are then used to monitor the implemented activities and progress towards set goals.

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### Surveillance of population health

The monitoring of population health is usually carried out through surveillance, which is an essential feature in the practice of epidemiology. It has been described as the *ongoing scrutiny, generally using methods distinguished by their practicability, uniformity, and frequently by their rapidity, rather than by complete accuracy. Its main purpose is to detect changes in trends or distribution in order to initiate investigative or control measures* (Last, 2001).

The surveillance of population health is a cyclical process which involves the systematic collection and collation of health data, analyses of this data to produce statistics, interpretation of these statistics to provide intelligence, the distribution of this intelligence to those who require it for action, and the continued surveillance to evaluate action taken. In short, surveillance provides information for action.

A good surveillance system will have a number of key attributes, it will need to be simple to operate as a whole and its component parts, flexible so that changes can be made to the method used with minimal cost in time, personnel and funding. Surveillance systems should be acceptable to the individuals participating and representative of them, thus accurately portraying the incidence or prevalence of the health-related event in a population by person, place or time. Finally and probably most important, surveillance must be timely, in order that appropriate action can be taken as any unnecessary delay at any point in the surveillance cycle may affect the ability of public health professionals to initiate prompt interventions or provide timely feedback.

Surveillance may be categorised as active or passive. Active surveillance requires special effort to collect data and confirm diagnoses e.g. outbreak investigations and surveys. This form of surveillance is more labour intensive and expensive and as such is rarely done on a routine basis. Passive surveillance on the other hand is mostly collected on a routine basis, usually through clinical and laboratory reporting.

Surveillance systems also vary according to whether a disease of interest is infectious (communicable) or non-infectious (non-communicable).

### Communicable disease surveillance

Communicable disease surveillance is carried out by the Health Protection Agency (HPA).

Like many other countries, there is a legal requirement to report a notifiable infectious disease. The statutory requirement for the notification of certain infectious diseases came into being towards the end of the 19th century. Diseases such as cholera, diphtheria, smallpox, and typhoid had to be reported in London from 1891 and in the rest of England and Wales from

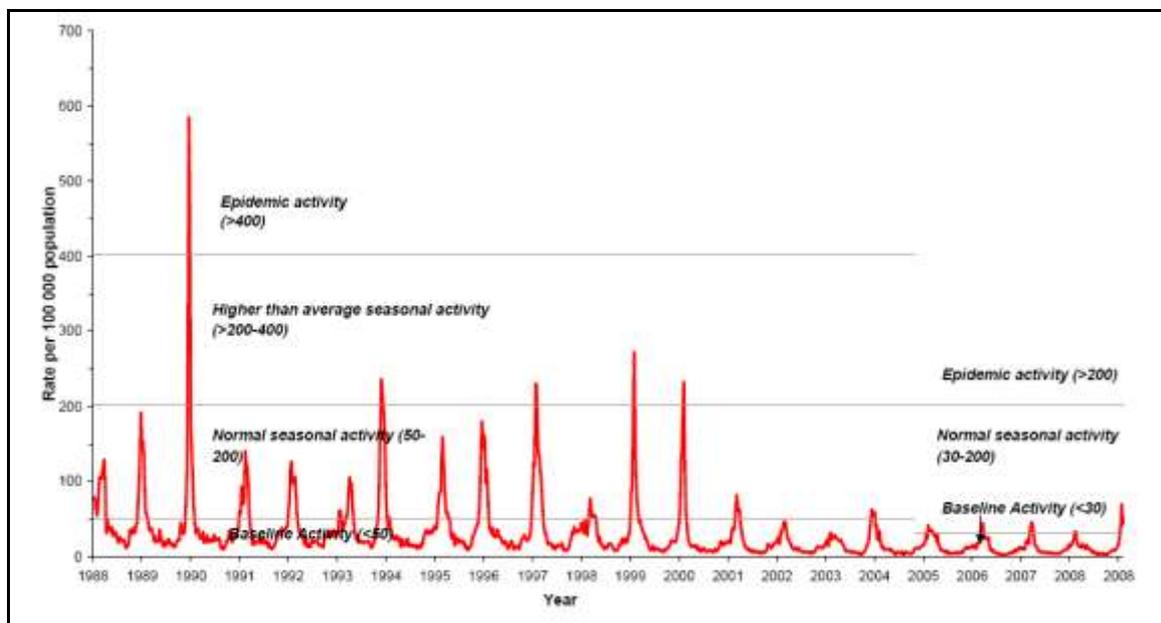
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1899. The list of diseases has been increased over the decades and now stands at about 30. Originally the head of the family or landlord had the responsibility of reporting the disease to the local 'Proper Officer' but now this is restricted to the attending medical practitioner, either in the patient's home or at a surgery or hospital. The prime purpose of the notifications of infectious disease system (NOIDs), held at the HPA is speed in detecting possible outbreaks and epidemics. Accuracy of diagnosis is secondary, and since 1968 clinical suspicion of a notifiable infection is all that is required. In 1997, the responsibility for administering the NOIDs system transferred to the Communicable Disease Surveillance Centre (CDSC), now the Health Protection Agency. The notifiable disease system is important in the identification of disease outbreaks and re-emerging infections. The information collected over time enhances knowledge and understanding about the disease.

The HPA also hold a number of other surveillance systems which are used to monitor a variety of infections. The surveillance conducted has a range of purposes and uses.

Surveillance data can be used like NOIDs for the detection of epidemics. Monitoring the rates of influenza activity is used to detect outbreaks (figure 2).

Figure 2: Influenza activity 1998-2008

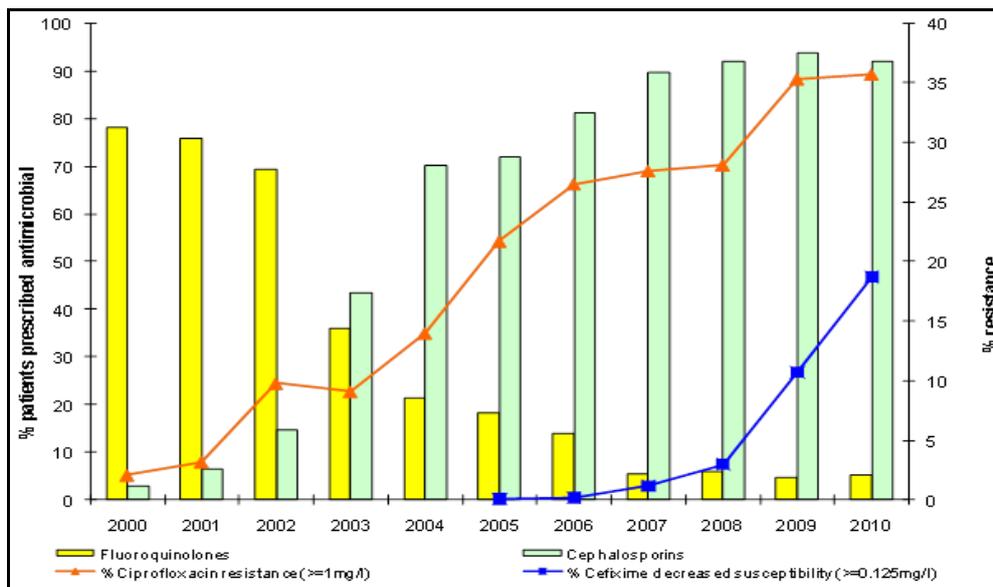


Source: Health Protection Agency

Communicable disease surveillance data is also used to inform public policy; data on the increasing resistance of gonococci to current antibiotic therapies has been used to inform therapeutic guidelines for the treatment and management of gonorrhoea (Figure 3).

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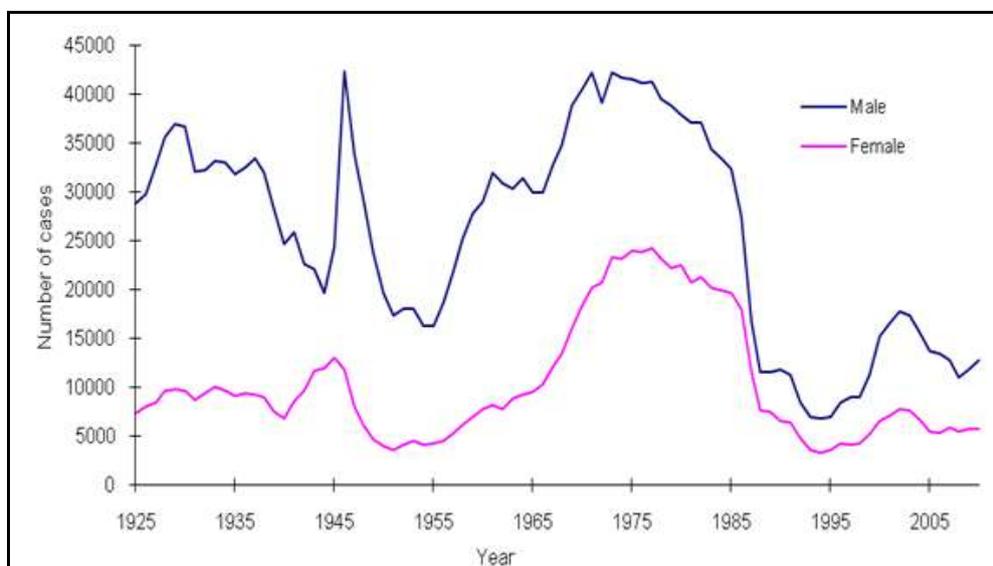
Figure 3: Antimicrobial prescribing practice, 2000-2010



Source: Health Protection Agency

The data can also be used to evaluate intervention programmes, monitor changes in infectious disease agents, generate hypothesis and stimulate research.

Figure 4: Gonorrhoea diagnoses, England and Wales 1925-2010



Source: Health Protection Agency

Communicable disease surveillance is also used to monitor trends over time, which can provide valuable insights into the role played by wider social determinants on the transmission of infectious disease. An example of this can be seen in figure 4. Diagnoses of gonorrhoea peaked in 1946 as the armed

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forces returned from World War 2, followed by a rapid decline as social stability returned and an effective treatment for gonorrhoea was found in penicillin. Gonorrhoea diagnoses then rose steadily during the sexual revolution of the 1960s and 1970s and remained high until 1985, thereafter decreasing sharply to the lowest levels since records began. The reduction in diagnoses coincided with the HIV/AIDS mass media campaigns and the subsequent behavioural modification that resulted from the increased public awareness.

### Non-communicable diseases

Non-communicable diseases (NCDs) (also known as chronic diseases) are diseases of long duration which generally progress slowly and involve some functional impairment or disability that are usually incurable. The four main types of non-communicable diseases are cardiovascular diseases (like heart attacks and stroke), cancer (neoplasms), chronic respiratory diseases (such as chronic obstructed pulmonary disease (COPD) and asthma) and diabetes. NCDs are largely preventable by means of effective interventions that tackle shared risk factors such as smoking, unhealthy diet, physical inactivity and harmful use of alcohol.

Non communicable disease surveillance is the ongoing systematic collection and analysis of data that provides appropriate information in relation to the disease burden, the population groups at risk, estimates of NCD mortality, morbidity, risk factors and determinants as well as the ability to track health outcomes and risk factor trends over time (WHO, 2011). Surveillance of non-communicable diseases involves notification system and sentinel surveys, in addition to disease registers and health surveys. Sentinel surveys are an alternative to population based surveys and collect data from designated institutions selected for their representativeness

The Health and Social Care Information Centre (The NHS IC) conduct surveys pertaining to non-communicable diseases and conditions, and risk factors associated with these diseases including healthy lifestyles, diabetes and mental health surveys. The IC conduct the Health Surveys for England, (HSE) which are a series of annual surveys designed to measure health and health related behaviours in adults and children, in England. HSE has core elements that are included every year and special topics that are included in selected years as shown below:

- Core topics include: general health, smoking, drinking and fruit and vegetable consumption, height, weight, blood pressure measurements and blood and saliva samples.
- Special topics include: cardiovascular disease, physical activity, accidents, lung function measurement and certain blood analytes.

Disease specific registries provide reliable, population based information on diseases and health conditions, and a high quality intelligence service. The gathered information includes incidence, prevalence, survival and mortality

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from non-communicable diseases and these include the Cancer Registries and Diabetic UK. The registries also play an essential role in the improvement of health and healthcare through the implementation and monitoring of national disease specific policies. An example of a registry is the Thames Cancer Registry which collects, processes, analyses and disseminates data on newly diagnosed cancer in residents of London. Information from disease registers is used in public health surveillance, planning health care provision, monitoring the burden of ill health in the population and the impact of preventive measures.

***“In considering the management of patients with chronic diseases, an accurate well-maintained register is a prerequisite to providing comprehensive and co-ordinated care.”***

***Cheales & Howitt, 1996***

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The GP registers provide information on the prevalence of diseases on their registered patients which is accessible from the Quality Outcomes Framework (QOF). While the prevalence rates from QOF relates to diagnosed patients, the Public Health Observatories produce model based estimates on disease prevalence taking into consideration the characteristics of the population.

Surveillance continues to be an integral part of public health and its relevance now and in the future is highlighted by the increasing demographic transition, aging, globalisation, migration and mobility, trade and emerging diseases (Kramer et al 2010).

### **Assessing population health needs**

Health Needs Assessment (HNA) is an evidence-based tool for identifying healthcare needs of a population for a specified topic e.g. a disease and reviewing the evidence for the efficiency and effectiveness of management of those needs.

Evidence of need is identified from the scientific literature, routine information services and ad hoc surveys. The effectiveness and cost-effectiveness of meeting the needs of the population, including those with unmet needs, is appraised by reference to scientific literature, benchmarking and the views of public and professionals. A HNA allows for an analysis of how important a specific topic is for the population by answering questions such as those outlined below:

- Is it common and does it cause significant ill health risks?
- How well is it currently being managed by local services, e.g what proportion of sufferers are having their needs met and how well?

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- At what cost could this specific topic be managed, e.g is there evidence that treatment outcomes could be improved and how cost-effective would a change in service delivery be?

A disease, e.g. Motor Neurone Disease, can have important needs as it leads to death in say 2-3 years, but may not have an effective treatment option.

The stages of HNA can be summarised as:

1. Identifying key stakeholders for a specific HNA
2. Identify health needs, current services, the outcomes and the evidence for improving health outcomes.
3. Develop recommendations on actions for change
4. Implement changes and develop monitoring and evaluation strategies
5. Measure impact of changes on services

The Public Health department in Hillingdon undertook both general and service specific needs assessments for the NHS, detailed in table 1. The Public Health team incorporates nationally and locally produced data in identifying health needs, current services and health outcomes that are useful in developing evidence based recommendations.

Table 1: Examples of Health Needs Assessments in Hillingdon

| Title and Year   | Details  |
|--|--|
| 2008 Mental Health Needs Assessment                      | The needs assessment provided information on mental health and illness of the adult population of Hillingdon and recommended evidence based approach in tackling mental health issues.   |
| 2006 & 2010 Oral Health Needs Assessments                | The 2006 oral health needs assessment provided local level information on oral health issues and inequalities in service use in the borough. This needs assessment provided evidence-based recommendation in tackling oral health inequalities. The 2006 assessment was updated in 2010 where review of progress from 2006 was monitored and new recommendations provided. |
| 2006 & 2010 Pharmacy Needs Assessment                    | This needs assessment was completed to support strategic commissioning priorities for NHS Hillingdon. It describes the services currently delivered and options for improvement within existing services.  |
| 2009 & 2011 Sexual Health and WellBeing Needs Assessment | The sexual health and wellbeing needs assessment provided detailed information to help shape the agenda for planning, commissioning and the provision of sexual health services for the population of Hillingdon. It is hoped that the document would stimulate discussion amongst stakeholders including users for this purpose.  |
| 2011 Children and Mental Health Service                  | This needs assessment was commissioned to support the development of a CAMHS commissioning strategy and to direct investment into the areas of the greatest need. It is  |

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|                          |  |
|--------------------------|--|
| (CAMHS) Needs Assessment | anticipated that it would also be a useful resource for the Health and Wellbeing board, the Mental Health group and other partners |
|--------------------------|--|

### Joint Strategic Needs Assessment (JSNA)

The Joint Strategic Needs Assessment (JSNA) is the process that will identify the current and future health and wellbeing needs of a local population in the light of existing services and informs future service planning taking into account evidence of effectiveness.

Whilst traditionally, public health departments have undertaken health needs assessment for the NHS, the Local Government and Public Involvement in Health Act 2007, places a statutory duty on local authorities and PCTs to produce a JSNA of the health and wellbeing of their local community.

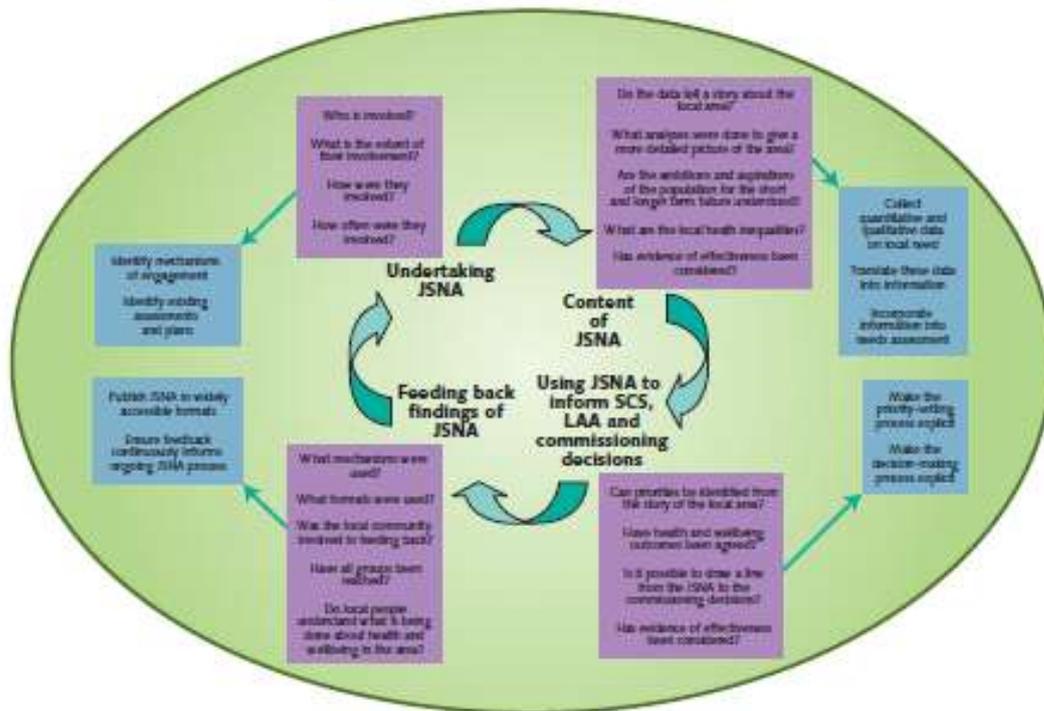
The JSNA is part of a planning process and provides a firm foundation for commissioning programmes and strategies which are aimed at addressing health and social care provision and reducing inequalities. It involves all the stages of HNA highlighted above and is an evolving working document produced jointly by the partners involved (figure 5). The information in the JSNA, when used holistically, does not only provide health and wellbeing statistics but enables commissioners to plan and commission integrated services that meet the needs of the whole local community, but particularly for the most vulnerable individuals and the groups with the worst health outcomes. This is done by identifying gaps in service provision and areas that have unmet needs. The approach shows what's working, what's not, and what could work better, since it identifies the demographic composition, risk factors related with a disease and the need for certain services in geographic areas thereby leading to proper targeting of services.

In Hillingdon this approach was used in developing ward profiles sponsored by the Hillingdon Health and Care Executive (HHCE) in 2003. The ward profiles provide detailed demographic, socio-economic profile mapping against service availability and accessibility for each of the 22 wards. The intention was to underline the links between the wider determinants of health (for example housing and educational attainment) and the health of the communities living in those areas.

The Hillingdon JSNA is a shared online information and intelligence resource, spanning health and wellbeing available to commissioners, providers and users of health and social care services (available <http://www.hillingdon.gov.uk/index.jsp?articleid=21833>)

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Figure 5: The Joint Strategic Needs Assessment process



Source: Department of Health, *Guidance on Joint Strategic Needs Assessment*

## Measuring the impact of policies on population health

### Health impact assessment

Health Impact Assessment (HIA) is a multidisciplinary method used in assessing and evaluating the health impacts of policies, plans and projects on a population through the use of quantitative, qualitative and participatory techniques (WHO 2012a). A HIA aims to provide recommendations on enhancing positive outcomes of a proposed policy on a population, particularly the vulnerable and disadvantaged groups. It encourages the use of evidence-based views and opinions from experts, users, and technical advisors.

A key consideration in HIA, is identifying and assessing potential evidence. Evidence for actual or potential impacts on health can come from many sources, and a good HIA will strive to ensure different types of evidence are properly identified and considered.

The stages (WHO 2012b) of HIA can be summarised as:

#### 1. Screening and Scoping

Screening involves a systematic algorithm, which takes the user through five questions (Department of Health, 2010) before a decision can be made on whether to conduct the HIA:

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- a) Will the proposed development or policy have a direct impact on health, mental health and wellbeing?
- b) Will the development or policy have an impact on social, economic and environmental living conditions that would indirectly affect health?
- c) Will the proposed development or policy affect an individual's ability to improve their own health and wellbeing?
- d) Will there be a change in demand for or access to health and social care services?
- e) Will the proposed development or policy have an impact on global health?

Responses to these questions should take into account whether particular population groups based on gender, disability, sexual orientation or race will be affected by the proposals. Considerations during the screening phase should also encompass economic issues such as the size of the project and the population affected. Outcome issues such as the likely nature and extent of disruption caused to communities by the development or policy, and monitoring and evaluation of the recommendations. Moreover, epidemiological issues such as the likely consistency of "expert" and "community" perceptions of probability and the frequency and severity of impacts should also be considered at this stage.

Following the conclusion of screening, a scoping report would then be produced by the team to present the rationale for the HIA. The report would summarise the questions to be answered by the process and outline how the HIA will be completed.

### **2. Identification of Health Impact**

The information and advice gathered from the screening questions would then be used to inform the list of all the potential impacts on the health of the population. The development proposals or policy would need to be thoroughly analysed, the population would need to be profiled and information will need to be gathered to establish among other things the number of people that could potentially be affected, their location, and the main common experiences and differences within the group. In order to ascertain the population's perceived needs, questionnaires, focus groups and interviews may be used.

In addition, a delegation from the HIA team would further assess and appraise the evidence base from previous HIAs and evaluations that involved similar developments or policies, making use of research articles and papers to identify any further health impacts. Where there is a paucity of evidence or the evidence is equivocal the precautionary principle should apply.

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***The precautionary principle states that if a policy or action has a suspected risk of causing harm to the public or environment, in the absence of scientific consensus that the policy or action is harmful, the burden of proof that is not harmful falls on those taking the action.***

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The delegation would then consult with experts in the relevant fields, to establish the extent of these impacts. These experts can be drawn from the public and local community groups affected by the development or policy, experts involved in the development, and professionals involved in local service delivery, as well as epidemiologists, health economists and scientists. The team would be required to establish for each health impact whether,

- a) the health impacts would affect particular subgroups of the population or the whole population
- b) they would be irreversible or reversible but difficult to resolve,
- c) they would be medium or longer term health impacts
- d) they would be likely to generate public concern
- e) they would possibly generate cumulative and/or synergistic impacts

Following consultation with the relevant experts, the team would reconvene to work together on producing a logic framework.

### **3. Prioritising Health Impact**

Based on the information received from the consulted experts, the HIA team would then prioritise the health impacts. This is done by combining the results and assessing whether they have an important positive or negative impact on the health of the population. Should the health impacts associated with development or policy prove not to be significant then the HIA would be recorded to this point and concluded. If they were found to be of significance, the process would continue to stage four.

### **4. Quantify or Describe Important Health Impact**

At this stage in the process, the team would try to numerically estimate and describe the numbers of people and the extent to which these people would be affected by the impacts identified in the development or policy during the previous stage.

The quantification of the health impacts could be in terms of Quality Adjusted Life Years (QALYs), Disability Adjusted Life Years (DALYs), resource and revenue costs to the health service and numbers who are more or less susceptible to ill health because of the determinants of health, such as

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education, or social capital. As throughout the process, the effects of these impacts on particular population groups should also be considered.

A description of the health impacts would also be outlined, explaining how each impact varies under different conditions and why it occurs.

### **5. Recommendation and Reporting to Achieve Most Health Gains**

During this stage the HIA team would propose recommendations that could be made and mitigate any negative health impacts and enhance the positive health impacts for the local population. These recommendations would, overall provide the greatest possible health gain for the population relative to the overall cost of the development. The recommendations should be presented to the steering group. The findings of each stage of the HIA should be put together in report format and communicated to decision makers.

### **6. Monitoring and Evaluation**

Once the report is finalised and signed off by the steering group and passed on to the decision makers for implementation the final part of the HIA is monitoring and evaluation.

The evaluation stage should involve an appraisal of the HIA process to assess the quality of the HIA. It should also involve an appraisal of how effective the HIA was in providing recommendations that were accepted and implemented by the decision makers. The evaluation should also assess if the implemented recommendations affected the positive and negative health impacts.

Public health professionals play a pivotal role at every stage of HIA as they have a clear vision of health needs and inequalities in the community. They can communicate risks, raise awareness through health promotion, advocate actions and also provide valuable inputs in development of strategies and policy formulation.

The UK, The Netherlands and Sweden were the first countries in Europe to establish HIA programmes. The UK government has always demonstrated a strong commitment to HIA principles. The 2004 English Public Health white Paper Choosing Health reiterated the importance of HIA for assessing national and local policies, programmes and projects.

## **Examples of Health Impact Assessments**

### **1) Rapid HIA of Proposed London Olympic Games and Their Legacy (ERM, 2004)**

Environmental Resources Management (ERM) was commissioned by the London Health Commission (LHC) and London Development Agency

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(LDA) to undertake a rapid Health Impact Assessment (HIA) of the 2012 London Olympic Bid and legacy plan. The objectives of the HIA were to:

- identify the potential health impacts and benefits likely to arise throughout the lifecycle of the London Olympic Games, in contrast to a counterfactual 'No Games' Scenario;
- to support the development of health indicators to be applied within the Department of Culture Media and Sport (DCMS) Multi Criteria Analysis;
- to identify potential means to mitigate health impacts and maximise health benefits.

### **2) HIA of the 2014 Commonwealth Games(2009)**

This was produced by Glasgow City Council working in partnership with NHS Greater Glasgow and Clyde, the Medical Research Council at the University of Glasgow and Glasgow Centre for Population Health (Design for Health). It provides recommendation to be implemented on how the health and wellbeing of people in Glasgow can be improved through the games.

## **Managing Public health information and knowledge**

### **Public Health Observatories**

Public health observatories (PHOs) are charged with the production of information, data and intelligence on the health of populations and health care practitioners, commissioners, policy makers and the wider community.

There are 12 PHOs across the five nations of England, Scotland, Wales, Northern Ireland and the Republic of Ireland, nine of which are based in England. The PHOs are a single gateway to a vast range of high quality and trustworthy public health intelligence which is central to both local and central government health policy and decision-making.

The PHOs in England have policy lead areas, ranging from alcohol to transport. The English PHOs support the public health intelligence needs of PCTs and local authorities. At a strategic level, the PHOs monitor and forecast trends in health status and disease, play a major role in showing how health inequalities are being tackled locally and regionally. They also monitor the effects of health and health care interventions to help give commissioners and providers of health and related services scientific evidence and data to reduce inequalities in access and health outcomes.

The expertise of public health intelligence analysts based in Hillingdon and other PCTs lies in their ability to combine the knowledge obtained from PHOs with local data and information to form meaningful health intelligence.

### Conclusions

This chapter demonstrates the scientific basis for the need to measure and monitor population health. Without the use of the data outlined above it would not be possible to understand the needs of the population. Knowledge and understanding of epidemiology provide public health intelligence analysts with the skills to understand why despite free national healthcare, some people are healthier than others, how important the area of residence is for the health of its community, whether the current population will have better experience of ageing than previous generations and why social status is so strongly linked to health.

The need for evidence based decision and policy making should be self-evident especially in a “cold climate” where cost effective and efficient resource allocation is a priority. This section shows that measuring and monitoring is an integral part of public health and the improvement of health and wellbeing. Measuring enables public health strategists to develop evidence based cost-effective strategies and programmes. The monitoring of developed strategies and programmes enables their efficacy and cost-effectiveness to be judged against expected performance levels.

### Recommendations

- A cold financial climate necessitates that all public health decisions are made through the use of the best available intelligence.
- There should be a clear connection between the data used by the Clinical Commissioning Groups (CCGs) and Directors of public health, this avoids conflicting data and intelligence at the local level and facilitates joint priority setting, ensuring that CCGs can effectively commission for their local area.
- It is imperative that effective partnership work is strengthened in a cold climate. The co-operation between local authorities, the NHS and CCGs is crucial to safeguard the needs of the population.
- There should be integration between national and local public health intelligence.

# Empowering Practitioners to improve quality through evidence based practice

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*John Aldous*

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## Introduction

When we are ill, we all expect our doctor, nurse, or pharmacist to give us the best possible advice and choice of treatments.

The overlapping issues of clinical effectiveness and evidence based care are at the heart of any strategy to ensure that the best possible treatment and care is given to patients: making sure that the decisions that patients, doctors and other health professionals, and managers make are based on the best quality evidence.

In simple terms, clinical effectiveness means that the treatment selected for a patient should be based on firm scientific evidence of its beneficial effect. The evidence based medicine movement emerged in the early 1990s to try to close the gap between a clinical benefit established in research studies and its use at the bedside. Subsequently the concept of evidence based health care was developed

This chapter looks at use of evidence based medicine and healthcare, briefly answering these questions

What is it?

Why we need it?

How can evidence based care be encouraged?

## What is evidence based medicine and healthcare?

Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research (Sackett et al 1996). Evidence based health care takes place when decisions that affect the care of patients are taken with due weight accorded to all valid, relevant information (Hicks N 1997).

## Why do we need it?

The practice of medicine and healthcare has always been a mixture of science and craft. Over time, more and more practitioners have attempted to base their practice on knowledge about what works, upon what is

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effective. During the last half of the twentieth century, with greater scientific knowledge, an increasing range of powerful treatments, rising healthcare costs and better statistical and experimental techniques, this search has gathered pace and become ever more essential.

If a treatment or care is not based on firm scientific evidence of its effectiveness then there may be adverse consequences for patients. They may receive a treatment that is less effective and may not have the best possible health outcome. Also they may receive treatments that are not necessary and thereby may be exposed to unnecessary risks. If patients are not given good quality advice they will be unable to make informed decisions about their care.

Evidence based care is also vital for the healthcare system as a whole. Both under-use and over-use of medical interventions can be costly, using up resources that could be better used. Each penny wasted on ineffective treatments is one that could have been better spent on other services for the benefit of patients.

There is good evidence that further progress is needed on this issue. For example, in his annual report in 2005, the Chief Medical Officer for England stated “Both under-use and over-use of treatments are rife in this and most other countries and are enemies of effective healthcare.” He based this conclusion on a number of scientific studies and the variations in rates of treatment in different parts of our country. These variations have been found in many areas of medical practice, including prescribing patterns, hysterectomy, treatment for people with coronary disease, and tonsillectomy among children.

A recent King Fund Report found continued variations across the country in a wide variety of elective surgical operations (Appleby et al, 2011). For instance in 2009/10, there was a seven- fold variation in the rates of tonsillectomy between PCTs in England: a finding that is unlikely to be due to differences between the health of populations in these areas.

Evidence based practice and policy is essential for preventive medicine, both at the level of individual patients (such as screening programmes) and for wider public health interventions to improve the public health (such as programmes to reduce levels of obesity). It could be argued that it is even more essential that decisions on preventive care are based on firm evidence of the risks and benefits as the people being “treated” are often healthy at the time and may not have actively sought help

When we consider the overall health of the population, prevention can often be a better strategy than treatment alone. For instance if we wish to reduce deaths from lung cancer in a given population, reducing smoking rates is a more effective measure in the long term than treating people with the

disease. There is clearly a balance to be made between the resources given to prevention and to treatment, but there is often a tendency for treatments that have an immediate benefit to be given a greater priority than prevention initiatives.

### How can evidence based care be encouraged?

#### Good quality evidence: interpretation and dissemination

The key element in any plan for increasing evidence based care practice is the existence of relevant evidence from scientific studies. However all research is not of the same quality and some types of research methods provide more reliable evidence than others. For instance randomised controlled trials are generally considered far better in providing good quality information on the effectiveness of treatments than non-experimental methods.

Even if the same method is used, each research study will have its own strengths and weaknesses. For instance, one study may have used one particular population group thereby limiting its applicability to other groups. Individual research needs to be *critically appraised* so that its strengths and weakness can be assessed and any bias identified.

But it is generally not possible to decide the best treatment for a patient just by looking at one research paper. In many areas of medicine, hundreds if not thousands of research papers are published each year. To ensure that all this information is taken into account, a *systematic review* is necessary. This involves a rigorous and comprehensive search of all published (and unpublished) literature to identify all relevant scientific studies. These are then critically appraised, the results considered together, and recommendations produced about the effectiveness of the intervention. Systematic reviews are a vital step in producing high quality evidence for clinicians because, for example they minimise the bias caused by selection of particular studies, and can reveal new evidence. Systematic reviews often use the method of *meta-analysis* whereby the results of several studies are combined to provide information of greater statistical significance than any of the individual studies.

Finally the results of systemic reviews need to be interpreted to provide advice or guidelines on what to do in particular clinical circumstances and then disseminated to potential users: these include health professionals, patients and policy makers.

In the UK, the work of the National Institute for Health and Clinical Excellence (NICE), the National Service Frameworks, the systematic work of the Cochrane Collaboration and the production of guidelines by medical Royal Colleges and other professional bodies have all served to clarify best practice in relation to specific areas of clinical decision making.

NICE is an agency of the NHS charged with promoting clinical excellence in NHS service providers in England and Wales, by developing guidance and recommendations on the effectiveness of treatments and medical procedures. These recommendations are issued in the form of "technology appraisals". These are based on a review of evidence of clinical and cost effectiveness for a particular technology, and give recommendations about whether and in what circumstances the technology should be used in the NHS. NICE also produces "clinical guidelines", providing wider guidance on the management of whole diseases or clinical conditions, which cover several different treatment options.

### Changes in patient care

In England there are a range of organisations producing and disseminating high quality evidence based guidance. But this, in itself, may not always be sufficient to produce changes in patient care across the NHS. It is not just a matter for clinicians: experience has shown that any policy to encourage effective clinical care needs to take a broad approach so that the whole range of organisational, financial and professional barriers that may prevent the adoption of effective treatments (or the cessation of less effective ones) are taken into account. Improving evidence based care therefore involves all levels of the health service: from policy makers in central government, the NHS leadership both nationally and locally, to individual clinicians on the ground.

At a local level, possible barriers to adoption of new evidence based models of care include; lack of professional agreement; consequences to other sectors; inadequate finances or resources; unwillingness or disincentives on the part of an organisation or individual to change; and patient concerns.

There are a range of quality improvement activities and initiatives that can be used to encourage the adoption of evidence based care. These include:

- evidence, guidelines and standards to identify and implement best practice
- quality improvement tools, to review and improve treatments and services based on factors such as: the views of patients, service users and staff; evidence from incidents, near-misses, clinical risks and risk analysis; outcomes from treatments or services.
- information systems to assess current practice and provide evidence of improvement
- development and use of systems and structures that promote learning and learning across the organisation

### Clinical Governance

The adoption of evidence based care is a key element of clinical governance. Clinical governance is a term used to describe a systematic approach to maintaining and improving the quality of patient care within a

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health system and is the system by which NHS organizations ensure quality in patient care. It is defined as “the framework through which NHS organisations are accountable for continuously improving the quality of their service and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish” (DH, 1998). The issue of clinical effectiveness is one of the key domains.

**Figure 1: Clinical Governance Domains**



Every NHS Trust has responsibility for the clinical governance of the services it provides. The current PCTs have responsibility for ensuring that the services they commission have robust clinical governance systems in place to promote continuous improvement in quality and outcomes.

In 2007, the Chief Medical Officer for England commissioned an independent report on the scope for enhancing and incentivising more effective and efficient clinical care. This report concluded that the NHS was not systematically addressing evidence-based clinical effectiveness. It noted that whilst there was much activity that, in general, related to clinical effectiveness, the coordination and alignment of these activities was unclear. It noted a policy climate that emphasised aspects of performance other than those that related to evidence based care and that healthcare organisations have little or no financial resource to direct towards the agenda. It noted that evidence based care is complex and requires a systematic, organisation-wide approach.

### **Evidence based public health and social care policy**

The principles of the evidence based movement are also relevant for public health policy and social care. NICE has issued guidance on a wide variety of public health issues. For example, its guidance on physical activity in children and young people is relevant not only for those working in the health sector but also for Children's Trusts, local authority departments, schools and early years providers, and the voluntary sector. A shared understanding of the evidence base is essential to enable effective partnership working in such complex public health issues.

Increasingly there is collaboration between the health sector and social care to provide integrated evidence based advice. For example NICE and the Social Care Institute for Excellence jointly produced clinical guidelines on supporting people with dementia and their carers, covering both health and social care.

### **Conclusions**

A key principle for the NHS is to concentrate on treatments and practice of proven effectiveness. This will ensure that patients receive the best possible care and that the resources given to the NHS are best used. Good quality evidence is often available for national or supranational levels but this needs to be interpreted at a local level and strategies developed to ensure the adoption of best practice. Those who are commissioning services need to place evidence based care at the heart of decision making. This may often mean facing difficult issues, such as the need to discontinue or reduce interventions of limited effectiveness and to invest in prevention.

The current changes in the NHS with their emphasis on devolving power to local clinicians offer a clear opportunity to put issues of clinical quality and evidence based care at the heart of decision making. The new primary care commissioning teams need to have continued support from national level organisations such as NICE that provide systematic reviews and evidence based guidelines. At a local level, there needs to be productive partnerships between primary care clinicians and their colleagues in secondary care and public health, and with their patients and the public.

Evidence based policy and practice is also of vital importance to wider public health policy and social care. A shared understanding of the evidence base is essential to enable effective partnerships between local government, the NHS and other stakeholders on wider public health issues and health and social care.

Public health practitioners have an important role in supporting evidence based care and policy making. They have considerable expertise in knowing or being able to access the evidence on what does or does not work and interpreting this to guide decision making.

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